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said first refrigerant for heat exchanging with said closed loops.

20. The refrigeration system according to claim 19, wherein said modulating valve means comprises two modulating valves and a three-way directional valve connecting said compressing stage to said condensing stage.

Claims 1, 2 and 4 to 10 remain unchanged.

## REMARKS / ARGUMENTS

Claims 1 to 10 remain in the application.

Claims 11 to 20 are now in the application.

Claim 3 has been amended to comply with 35 U.S.C. 112, second paragraph, following the Examiner's rejection. The rejection is herein traversed as the unclear limitation has been clarified.

Claim 1 has been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,216,481 (hereinaster "Kantchev") in view of U.S. Patent No. 5,335,508 (hereinafter "Tippmann"). Applicant argues that neither Kantchev nor Tippmann teaches having parallel stand-alone condensing loops in the condensing stage of a refrigeration circuit. More precisely, as mentioned by the Examiner, "Kantchev does not teach the second condensing unit 10 comprising a stand-alone closed loop." The loops of Tippmann (e.g., one of which includes compressor 29, evaporator 23 and condenser 63) are interconnected by a circuit (i.e., comprising the pump 21), whereby Applicant argues that these loops are not "stand-alone." This is also mentioned in the description of Tippmann (Col. 3, lines 20 to 22). Applicant argues that stand-alone loops can individually adapt to heat exchanger conditions of the refrigeration circuit, whereas the loops of Tippmann are bound by a common circuit that will restrict them to operating under similar conditions. Furthermore, Applicant does not describe the use of a condenser, whereby the loops of Tippmann cannot be used with the Applicant's system. Therefore, Applicant believes that independent Claim 1 patentably distinguishes over

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Kantchev in view of Tippmann. As independent Claim 1 is deemed to be patentable, dependent Claims 1 to 10 should also be accepted.

Applicant has incorporated Claims 11 to 20, including independent Claim 11, similar to independent Claim 1 but incorporating limitations supported by paragraph [0020]. Dependent Claims 12 to 20 are similar to dependent Claims 2 to 10.

Attached hereto is a marked-up version of the changes and additions made to the claims by the current amendment. The attached pages are captioned "Version with Markings to Show Changes Made."

In view of the above amendments and remarks, this application is now believed to be in condition for allowance and, accordingly, notice to this effect is earnestly solicited.

Respectfully submitted,

SERGE DUBÉ

By:

August 8, 2002

(Date)

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Encl. - Version with Markings to Show Changes Made





## VERSION WITH MARKINGS TO SHOW CHANGES MADE

3. (amended) The refrigeration system according to claim 1, wherein said heat exchange relation between said main refrigeration circuit and said condensing stage closed loops is achieved by a plate heat exchangers.

11. (new) A refrigeration system having a refrigeration circuit, wherein a first refrigerant goes through at least a compressing stage, wherein said first refrigerant is compressed to a high pressure gas state to then reach a condensing stage, wherein said high pressure gas refrigerant is condensed at least partially to a liquid state to then reach an expansion stage, wherein said high pressure liquid refrigerant is expanded to a low pressure liquid state to then reach an evaporator stage, wherein said low pressure liquid refrigerant is evaporated at least partially to a low pressure gas state by absorbing heat, to then return to said compressing stage, said condensing stage having at least a pair of stand-alone condensing stage closed loops in heat exchange relation with said main refrigeration circuit, said stand-alone condensing stage closed loops being parallel one to another and comprising a second refrigerant circulating between at least a heat absorption stage, wherein said second refrigerant absorbs heat from said first refrigerant in said main refrigeration circuit so as to condense said first refrigerant to said liquid state, and a heat release stage, wherein said second refrigerant releases absorbed heat, said condensing stage having modulating valve means for selectively and quantitatively modulating the temperature of said first refrigerant and compressor head pressure as a function of at least one of an outdoor temperature and an indoor ambient temperature.



- 12. (new) The refrigeration system according to claim 11, wherein said second refrigerant is one of ethylic acetate, acetic acid, sulfuric acid, ammoniac, calcium chloride, hydrogen chloride, methylene chloride, sodium chloride, vinyl chloride, carbon dioxide, ethanol, ethylene glycol, acetate formiate, potassium formiate, iso-butane, Pekasol 50, propane, propylene glycol, toluene, and trichloroethylene.
- 13.(new) The refrigeration system according to claim 11, wherein said heat exchange relation between said main refrigeration circuit and said condensing stage closed loops is achieved by plate heat exchangers.
- 14. (new) The refrigeration system according to claim 11, wherein said heat release stage of a first of said closed loops comprises at least one of a heat reclaim coil and a heating unit, and a second one of said closed loops comprises an evaporative condenser.
- 15. (new) The refrigeration system according to claim 14, wherein said heat release stage of said first of said closed loops comprises valves to selectively chose flow of said second refrigerant through at least one of said heat reclaim coil and said heating unit.
- 16. (new) The refrigeration system according to claim 11, wherein absorbed heat from said second refrigerant in said heat release stage is released by at least one of being evacuated outdoors, heating water and heating air.
- 17. (new) The refrigeration system according to claim 16, further comprising valves for selecting the releasing of said absorbed heat from said second refrigerant in said heat release stage.



- 18. (new) The refrigeration system according to claim 11, further comprising an absorbed heat reservoir downstream from said heat absorption stage in said first of said closed loops, wherein said second refrigerant is accumulated prior to being fed to said heat release stage.
- 19. (new) The refrigeration system according to claim 11, wherein said modulating valve means comprises at least a valve for selectively and quantitatively directing flow of said first refrigerant for heat exchanging with said closed loops.
- 20. (new) The refrigeration system according to claim 19, wherein said modulating valve means comprises two modulating valves and a three-way directional valve connecting said compressing stage to said condensing stage.